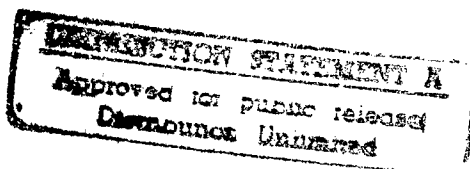


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Statement of

The Under Secretary of Defense for Acquisition and Technology
Honorable Paul G. Kaminski

Before the
Military Research and Development Subcommittee of the
House Committee on National Security

on

Ballistic Missile Defense

March 6, 1997

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Mr. Chairmen, members of the subcommittee, and staff, thank you for the opportunity to discuss with

you the Department's Ballistic Missile Defense (BMD) program.

The proliferation of short-range ballistic missiles in the world today poses a direct, immediate threat to many of our allies and to some U.S. forces deployed abroad in defense of our national interests. Over time, the proliferation of longer range missiles could pose a greater threat to the U.S. itself. For these reasons, active defenses are playing a central and vital role in U.S. defense planning well into the next century. The resource-constrained environment of the nineties, together with the complex nature of the security challenges facing us, requires that we deploy the right capabilities at the right time for achieving the highest overall level of security for the United States.

To do so we must consider the role of missile defense within the nation's broader national security strategy. Active defenses can never be considered in and of themselves a panacea for countering the proliferation of ballistic missiles and weapons of mass destruction. We have a broader strategy encompassing a full range of tools in a national "kit" of options. Our strategy has three components: preventing and reducing the threat; deterring the threat; and defending against the threat.

For example, we have adopted the Non-Proliferation Treaty, the Framework Agreement with North Korea, the INF Treaty, the MTCR, and export controls as ways of preventing or reducing the threat to our allies and U.S. forces deployed abroad. The threat to the United States has been reduced significantly through the START treaty, and it will be reduced even further through the START II treaty when Russia ratifies it. Additionally, we have an extensive program for actually dismantling the warheads and the missiles that had been directed against us in a Cooperative Threat Reduction (CTR) program supported by Nunn-Lugar funds. This is our first line of defense against ballistic missiles and weapons of mass destruction--preventing and reducing that threat.

The second line of defense is deterrence. In the case of the long-range missile threat to the United States, either from land-based intercontinental ballistic missiles (ICBMs) or submarine-launched ballistic missiles (SLBMs), our strategic nuclear forces have been a bulwark of deterrence for nearly a half-century. That will continue. We have smaller numbers of nuclear forces now than we did a decade ago, but they are still very powerful and quite capable of carrying out the strategic deterrence mission. In the case of deterring short-range missile threats, our theater nuclear forces and very powerful conventional forces provide some level of deterrence against limited nuclear attacks.

To the extent that these first two components, reducing the threat and deterring the threat, are not fully successful, we have to be prepared to defend directly against a threat. In the case of the strategic ballistic missile threat to the United States from rogue states or from accidental/unauthorized launch, the National Missile Defense (NMD) program is America's ultimate insurance policy. For our deployed forces, we are developing and fielding multi-tier theater missile defenses to counter regionally-oriented missile attacks.

THE THREAT

The theater threat to our allies and U.S. forces deployed abroad is real and growing. We saw it

demonstrated in the Gulf War. Besides Iraq, we know that thousands of short-range missiles are deployed today with hundreds of launchers in as many as 30 different countries--some of these countries are quite hostile to the United States. This threat is here and now. It is widely dispersed, and it has to be taken very seriously.

In addition to the short-range missile threat, we see a medium-range threat emerging. Some nations are developing their own medium-range missiles; in particular, North Korea is developing the No Dong missile. Other nations, some of them rogue, are buying these missiles or trying to buy them. Iran is a case in point.

We also have a threat today from missiles armed with chemical and biological warheads. We believe that Iran, North Korea, and Libya all have extensive chemical weapon programs. In addition, we anticipate a nuclear threat being possible in the future. We know in retrospect that Iraq was very close to an operational nuclear capability at the time they started the Gulf War--fortunately, they were not all the way there. We know that North Korea was close. But their program is now stopped by the Framework Agreement. And we understand that Iran is working to achieve a nuclear weapons capability, but we believe they are many years away. We will keep a close eye on the nuclear threat from so-called rogue nations armed with theater ballistic missiles.

In the case of nuclear strategic weapons, Russia has a significant capability for delivering these weapons with strategic weapon delivery systems--land-based and submarine-launched missiles and long-range aircraft. China can also deliver these weapons with land-based and emerging sea-based ballistic missile capabilities. We do not see these systems as posing a threat to the United States in the foreseeable future. That is, we do not see an intent that goes with the capability. Even should that situation change, we will continue to field a significant U.S. deterrent force.

Land-attack cruise missiles (LACMs) are an emerging threat. LACMs are deployed in the U.S., France, and Russia. A dozen or so other countries are also developing this capability. We believe the nations of most concern are now more focused on short-range ballistic missiles, and the widespread proliferation of high-tech LACMs is 10-15 years away. However, there is already a widely deployed robust threat of anti-ship cruise missiles in about 70 nations, and these could be modified to provide a land-attack capability of some numbers (albeit with limited range) in a few years.

We do not see a near-term ballistic missile threat to U.S. territory from the so-called rogue nations, but we cannot be complacent about this assessment. The threat of long-range missiles from rogue nations could emerge in the future. The Intelligence Community estimates that this threat would take 15 years to develop, but could be accelerated if those nations acquired this capability from beyond their borders. This is why our counter-proliferation programs are important and why the role of missile defense within this broader national strategy must be carefully integrated into U.S. defense planning. This is also why our proposed "three-plus-three" NMD program could be deployed as early as 2003--well ahead of the intelligence community estimates.

BMD PROGRAM

In order to ensure we are capable of meeting the threat as it emerges, under our oversight responsibilities, each of our acquisition programs is reviewed to determine its progress against the Acquisition Program Baseline and to insure the program, as planned, continues to meet the Department's requirements. Program adjustments may be made in response to a number of factors, including changes in the requirement, threat, technology, funding or law. Where appropriate, such adjustments are then reflected in our funding request through the President's budget.

We currently have a balanced missile defense program -- one that is affordable, and can be successfully executed. It is well matched to the missile threats we will be facing. Our program made use of all of the fiscal year 1996 funds that were appropriated for missile defense, and will make use of all fiscal year 1997 funds—both the funds that were requested by the President, and the funds that were added by the Congress. In addition we have increased funding in the 98 President's budget for the THAAD, SBIRS (Low), Airborne Laser, and Navy Theater Wide programs.

Our fundamental priorities in our missile defense program have not changed over the past year. The first priority is to defend against theater ballistic missiles and cruise missiles. Within the theater missile defense (TMD) mission area, the first sub-priority is to field systems to defend against the existing short-to-medium-range missiles--our lower-tier TMD systems. The next sub-priority is to proceed at a prudent pace to add upper tier TMD systems for wide area defenses and defenses against the longer-range theater ballistic missiles as that threat emerges.

Our second priority is to develop a capability to defend against Intercontinental Ballistic Missiles--our National Missile Defense program--and the cruise missiles which may threaten the United States in the future.

Finally, our third priority is developing a robust technology base to underlie these two programs---both the TMD program and the NMD program--to be able to develop and deploy more advanced missile defense systems over time as the threat systems they must counter become more advanced.

**DoD****Missile Defense Budget Summary**

The above table presents a summary overview of the DoD missile defense budget. Reading the chart from left to right, the first two columns show the RDT&E , Procurement , and MilCon funding requested in the 1997 President's Budget (PB). The third and fourth columns show the RDT&E, Procurement, and MilCon amounts appropriated for FY 1997. The fifth and sixth columns reflects the FY 1998 funding numbers programmed by the Department in the 1997-2002 FYDP and support the program requested in the 1997 PB. The seventh and eighth columns identifies the RDT&E, Procurement, and MilCon funding requested in the 1998 PB. The total amount of these last two columns represents an increase of 316 million dollars over that programmed for FY 1998 in the 1997-2002 FYDP to support the 1997 PB program. This increase, to almost \$3.5 billion, underscores the Department's continued commitment to both Theater Missile Defense and National Missile Defense as high defense priorities.

THEATER MISSILE DEFENSE

For our number one priority--Theater Missile Defense, two systems are currently fielded--the Marine Corps Hawk system and the Patriot Advanced Capability (PAC) 2/Guidance Enhanced Missile (GEM) system. The Hawk capability is limited. However, the PAC-2/GEM system contains a guidance upgrade that significantly improves the lethality and coverage of the basic PAC-2 system used in combat during Desert Storm. We successfully tested this system against a ballistic missile defense target at Kwajalein Missile Range on February 7, 1997.

Although the PAC-2/GEM system provides a more robust capability than the Patriots we deployed in Desert Storm, it is still not fully capable of dealing with the threat. The lower-tier systems I'll describe next will have that capability, and these systems have our highest priority for fielding as soon as they are ready.

Lower-Tier Systems

Our lower-tier systems build on existing infrastructure and prior investments in on-going programs--extending the capability of the Patriot and Aegis/Standard Missile systems; and improving our Battle Management/Command, Control, and Communications (BM/C3) capability. We have also begun a cooperative program with our allies, the Medium Extended Air Defense System (MEADS), which is a highly mobile system intended to provide our maneuvering forces with a 360-degree capability against both ballistic and cruise missiles.

The PAC-3 and the Navy Area Defense (NAD) system, will give us our core lower-tier capability. Neither of these programs involves a significant technology risk at this point. The risks for these programs have been related to program execution. Our task is to ensure that we have a robust program to proceed with both systems and to field this capability as early as possible.

PAC-3

PAC-3 is a much more capable derivative of the PAC-2/GEM system in terms of both coverage and lethality. The PAC-3, in fact, has a new interceptor missile with a different kill mechanism--rather than having an exploding warhead, it is a hit-to-kill system.

In the 1997 budget, we added about \$230 million for the PAC-3 through the Future Years Defense Program (FYDP) and established a realistic schedule to lower the program execution risk by extending the engineering and manufacturing development (EMD) phase of the program by ten months. System performance will be improved by re-phasing the missile and radar procurements; upgrading three launchers per battery with Enhanced Launcher Electronics Systems; and extending the battery's remote launch capability. PAC-3 Low-Rate Initial Production (LRIP) will begin in the second quarter of fiscal year 1998, and the First Unit Equipped (FUE) date is planned for the fourth quarter of fiscal year 1999. The FUE capability will consist of 16 missiles and five radars which will be placed in one battalion.

Navy Area Defense

The second of the lower-tier systems, the Navy Area Defense (NAD) system, consists of Standard Missile-2 Block IVA interceptors deployed aboard Aegis ships. The capability provided by this system has the advantage of being able to be brought into theater quickly without having to put forces on land.

We added about \$120 million to this program in the FY97 budget. These funds covered delays in risk-reduction flights and adjusted cost estimates for test targets and lethality efforts. This allowed us to proceed expeditiously with the EMD program and LRIP missile procurement.

We are continuing to emphasize the rapid and robust fielding of this core TMD program. To demonstrate the capabilities of the NAD system, in January 1997, a target simulating a threat ballistic missile was successfully engaged. In February 1997, the NAD program was reviewed during the Defense Acquisition Board (DAB) Readiness Meeting (DRM). Based on the data presented, I approved the program to enter into the EMD phase. This puts us on the path to have a User Operational Evaluation System (UOES) capability on two cruisers late in fiscal year 1999, with the FUE in the fourth quarter of fiscal year 2001.

MEADS

The last of the lower-tier systems is the Medium Extended Air Defense System (MEADS), formerly the Corps SAM program. MEADS is the only Theater Missile Defense (TMD) system under consideration to provide maneuver forces with 360 degree defense protection against the real and growing threat of short-range tactical ballistic missiles, cruise missiles, and unmanned aerial vehicles. This system is intended to provide fundamental enhancements in tactical mobility, strategic deployability, and operational capability. Key in this regard will be transportability on C-130 aircraft as a highly mobile system we are designing to protect our forward deployed and maneuvering forces. MEADS would replace Hawk, and some portion of Patriot. As discussed above, we will defer equipping three Patriot battalions with PAC-3 pending a decision on development and deployment of MEADS.

This program has made tremendous progress in the last 12 months. We have signed an MOU on this program with Germany and Italy, and NATO has formed a project agency that has started work in Huntsville, Alabama. We plan about \$115 million through FY 1998 to fully fund the U.S. costs of the Project Definition/Validation phase. We are working to be ready to make a decision to enter development in late fiscal year 1998 or early 1999.

Upper-Tier Systems

Our second theater missile defense priority is the upper-tier systems. These systems are necessary to defeat longer-range ballistic missiles, to defend larger areas, and to increase effectiveness against weapons of mass destruction.

The Department's plan for upper-tier systems includes the development of the Theater High-Altitude Area Defense (THAAD) system for our ground forces. In addition, our upper-tier approach moves the Navy Theater Wide (NTW) System from the status of a candidate program to a core program. NTW begins with a concept definition and technology demonstration and has its own established funding line. We are also pursuing a boost phase intercept capability with the continued development of the Airborne Laser (ABL) system.

THAAD

The THAAD system will provide extended coverage for a greater diversity and dispersion of forces and the capability to protect population centers. But the principal additional capability provided by this system is the ability to deal with longer-range theater missile threats as they begin to emerge. THAAD also reduces the number of missiles that the lower-tier systems must engage and provides us with a shoot-look-shoot capability--the ability to engage incoming missiles more efficiently.

THAAD is the most mature upper-tier system. Our President's Budget 1997 schedule for this program had LRIP beginning in fiscal year 2003, with a FUE in fiscal year 2006. However, we have added \$690 million to this program over the FY 1998 FYDP, which moves the FUE to late fiscal year 2004. This additional funding also provides the following benefits: (1) completes the funding for the second Engineering and Manufacturing Development (EMD) radar, (2) decreases schedule and technical risks during EMD, and (3) decreases the total acquisition cost by \$457 million.

The THAAD Program has been restructured over the past year. However, we made a conscious decision and effort to keep the UOES portion of the program on track. We should be able to deploy an initial limited THAAD UOES capability in the second quarter of FY 1999 should a contingency arise. The final UOES capability would include about 40 missiles and two radars, which will be used for user testing, but which could be maintained in theater if needed. Recent testing difficulties have led to the slip of this capability from the fourth quarter of FY 1998 to the second quarter of FY 1999. We still have a significant system engineering challenge. The fact that recent THAAD flights have not met all their objectives, stretching out testing and delaying the start of EMD by over fifteen months, illustrates the difficulty of this task. If the seventh THAAD test, scheduled for early March, is not successful, it will be necessary to reevaluate the program's schedule and content.

NTW

The Navy Theater Wide system is projected to add the same generic kind of upper-tier coverage capability as the THAAD system, again providing longer-range coverage and protecting a wider area. This system also offers ascent-phase and mid-course intercept capabilities in cases where the Aegis ship can be positioned near the launch point, and between the launch point and the target area.

The Navy Theater Wide system is less mature than the THAAD system. We restructured this program in 1996 and made it a pre-MDAP program and decided to proceed with concept definition and a technical demonstration. We have reevaluated this program and have added about \$220 million to it over the FY 1998 FYDP. This will lower the risk for the flight demonstration and accelerate the initial intercept test to first quarter fiscal year 2000.

This program responds to the need to proceed at the fastest prudent pace as the threat emerges, the lack of maturity of the technology, and the need to further develop the system concept to enhance robustness. There is also the opportunity to apply technology being developed for national missile defense to the NTW system. Likely areas of technology synergy include advanced sensors, guidance, and propulsion. Like other TBMD programs at this stage, the program faces significant technology as well as engineering challenges. In particular, since the LEAP kinetic kill vehicle is not yet mature, we need to better understand alternatives before committing to full-scale development. Planned modifications to the

AEGIS combat system will provide the fire control sensor capability needed to meet operational requirements.

Boost-Phase Intercept

Boost Phase Intercept (BPI) is a concept where a hostile Theater Ballistic Missile (TBM) is intercepted during its boost phase of flight. During boost phase, a TBM is a relatively large and vulnerable target; it does not maneuver and its plume/exhaust presents a very high infrared (IR) signature. The BPI concept offers several advantages. One, the lethality challenge is greatly simplified—destruction of the TBM can be achieved by direct hits on the target warhead or sending interceptor warhead fragments into the target booster fuel tanks, guidance system or the rocket motor. Two, a successful BPI campaign eases the requirements placed on a terminal missile defense system and provides an answer to many of the measures an enemy can adopt in order to counter terminal defenses, including the use of decoys, penetration aids, and advanced submunitions. And three, the TBM boost phase of flight takes place over enemy territory.

Achieving an intercept here could cause debris to fall on hostile rather than defended territory and thereby serves as a deterrent to placing weapons of mass destruction—nuclear, chemical or biological—on theater ballistic missiles.

We are working on several approaches for fielding a Boost-Phase Intercept (BPI) capability against theater ballistic missiles. The Air Force Airborne Laser (ABL) is now a Major Defense Acquisition Program funded at \$1561 million over the fiscal 1998 to 2003 time period. The ABL will be able to engage tactical ballistic missiles (TBMs) early, while they are still over the enemy's territory. This will provide a valuable deterrent, since the enemy faces the possibility of his missile falling short of its target; perhaps on his own territory if destroyed very early in flight. The Program Definition and Risk Reduction (PDRR) program addresses the remaining risk of integrating a number of proven technologies onto the aircraft. We are planning to culminate the PDRR program in fiscal 2002 with the destruction of a boosting TBM. If successful, the PDRR aircraft would then have residual operational capability, and could be deployed when required (similar to the Joint STARS deployment during Desert Storm). In parallel with the ABL program, the Ballistic Missile Defense Organization (BMDO) is conducting studies to refine the concept for an Unmanned Aerial Vehicle (UAV) with a kinetic energy interceptor (at a rate of about \$10 million per year in fiscal years 1997 and 1998). This level of investment is sufficient to support a back-up path should problems develop with the airborne laser approach.

BM/C3

Interoperability in BM/C3 is essential for successful TMD operations. A capable, joint, interoperable BM/C3 underlies the three pillars of TMD, improving the effectiveness of active defense, passive defense, and attack operations.

We are actively pursuing three avenues to ensure effective BM/C3. These are: improving early warning and dissemination, ensuring communications interoperability, and upgrading command and control centers for TMD functions. From the joint perspective, BMDO oversees the various independent weapon system developments and provides guidance, standards, equipment and system integration, and analysis to integrate the sensors, interceptors, and tactical command centers into a joint, theater-wide TMD architecture. BMDO also conducts tests and demonstrations with the Commanders-in-Chiefs (CINCs) to verify this architecture meets the requirements and supports the warfighters' needs. Work in this area will be enhanced by the addition of the newly created Joint Theater Air and Missile Defense Organization (JTAMDO).

These BM/C3 initiatives provide several benefits to active defense. Effective BM/C3 conserves the number of interceptors required by improving weapon system fire distribution and coordination and through sensor fusion. It provides multiple information paths between sensors, shooters, and control locations to combat sensor outages and jamming. BM/C3 weapon cueing information also increases battlespace and depth of fire, improves defense against long-range threats, and increases the defended area. For attack operations, BM/C3 helps locate the threat and improve probability to shooting the shooter first. BM/C3 also supports passive defense measures by providing greater early warning and faster reaction times.

The Department plans to spend about \$200 million per year on enhancements to the battle management/command, control, and communications (BM/C3) capabilities of our theater missile defense forces. This amount includes "embedded funding" in the Patriot and Aegis programs. It also covers the amount required for the Department's TMD C3 core programs, such as the ADA Brigade Upgrades; JTIDS procurement and TBM platform integration; datalink standards; Combat Information Center (CIC) upgrades; and TIBS/TDDS integration.

THEATER AIR AND MISSILE DEFENSE

The Department of Defense has stood-up an organization, JTAMDO, that will define the required system interoperabilities and operational architectures and validate mission capabilities in coordination with the warfighting CINCs and Military Services. A key objective of this structure is to effectively and efficiently integrate requirement considerations with acquisition activities for Theater Air and Missile Defense (TAMD) efforts. In this structure, the JTAMDO will be the single organization responsible for the planning, coordination, and oversight of joint integrated TAMD operational requirements and architectures. BMDO will assume the role of Integration Systems Architect for TAMD. To fulfill their responsibilities, JTAMDO and BMDO will work closely together and with the CINCs, Services, OSD, and Joint

Staff using an IPT approach. A key product of this effort will be a TAMD Master Plan that includes requirements and acquisition road maps.

The program we are developing is based on a strategy with several overarching elements. First, our Cruise Missile Defense systems must be fully integrated with ballistic missile defense (BMD) in a Joint Service theater air defense architecture. Second, we must have broad area defense. This will be provided through a layered defense architecture of fighters with air-to-air weapons, existing surface-to-air missile systems (i.e., Patriot, Aegis) with an over-the-horizon capability when supported by our new airborne sensors, and finally an inner self defense layer generally composed of the same surface-to-air weapons using their own surface-based sensors. Third, we must leverage and capitalize on our existing large investment in air defense systems. This will be accomplished by several system upgrades, the addition of new airborne sensors which greatly enhance the capability of existing shooters, and expanded networking of all sensors and shooters using both the Cooperative Engagement Capability (CEC) and the Joint Tactical Information Data System (JTIDS).

We expect our program plans to evolve over the next year as results of on-going studies become available. While JTAMDO is responsible for developing centralized planning for TAMD in collaboration with the CINCs, Joint Staff and Services, the program will be executed, in a decentralized way, by the Defense and Component Acquisition Executives, requirements developers, program manager and resource allocation officials. Any management changes required for BMDO to fulfill its role as Integration Systems Architect for TAMD will not impact Service-unique responsibilities.

NATIONAL MISSILE DEFENSE

The Department's second overall missile defense priority is National Missile Defense. Our intended program is to position the United States to respond to a strategic missile threat as it emerges. Last year, we have shifted our national missile defense emphasis from a technology readiness program to a deployment readiness program.

Under our "3+3" program, we have begun to develop and test elements of an initial NMD system. If after three years we encounter a threat situation that warrants deployment, then an initial operational capability (IOC) for an NMD system could be achieved in another three years, by 2003.

To implement this approach, the Department is spending the additional funds added by the Congress in the fiscal years 1996 and 1997 appropriations in support of this NMD deployment readiness program. Once the NMD technology base is built up over the next three years, the NMD deployment readiness posture can be sustained at a reduced level of about \$350 million a year.

This approach enhances the technological foundation of our NMD program in two ways: (1) the performance of the National Missile Defense we would deploy will be considerably improved over time; and (2) the timeliness of response to field an operational capability to counter an emerging threat will be shortened from six years to three years. If the decision is made to deploy an NMD system in the near term, then the system we could field in 2003 would provide a very limited capability. If the threat does not warrant deploying a system in the near term, we will continue to enhance the technology base and the commensurate capability of the NMD system that could be fielded on a later deployment schedule.

The goal here is to be in a posture to be three years away from deployment, so that we can respond to the emergence of a threat. It does not make sense to make a deployment decision in advance of the threat, because we would be making investments prematurely, resulting in a system that would be less capable when it is really needed. In the absence of a threat, it is more sensible to continue to enhance the capability of the system that could be deployed when it is needed. This approach fields the most cost effective capability that is available at the time the threat emerges.

The development program that will be executed over the next three years will comply with the existing ABM Treaty. The system that is ultimately fielded, should a deployment decision be made after three years, might comply with the current Treaty, or might require modification of the Treaty, depending on what the threat situation requires. At this point, it is important to underscore that there is no commitment today to deploy an NMD capability. The funds to deploy an NMD system are not in the Department's Budget.

The Department plans to test the Exo-atmospheric Kill Vehicle (EKV) for the NMD Ground-Based Interceptor (GBI) in fiscal year 1997 and conduct the first integrated system flight test of a ground-based interceptor, prototype ground-based radar (GBR), upgraded early warning radars, and improved BM/C3 in fiscal year 1999.

The Air Force is funding development of the Space Based Infrared System (SBIRS) low earth orbit (SBIRS-Low) formerly known as Space and Missile Tracking System (SMTS). SBIRS-Low provides a broad range of support to both TMD and NMD, as well as technical intelligence and battlespace characterization of non-ballistic missile targets. It will provide a unique mid-course tracking capability of missile targets which will allow greatly improved cueing of interceptors, and far more accurate determination of launch position and impact points than is currently possible. SBIRS-Low will also have unique capabilities for space surveillance and intelligence collection.

The SBIRS-Low program currently consists of two competing contractor teams. Hughes/TRW is developing a two-satellite Flight Demonstration System (FDS); Rockwell/Lockheed-Martin a single-satellite Low Altitude Demonstrator System (LADS), with both programs launching in late FY99. These risk-reduction satellites will serve as a "bridge" to a fully operational system in the next century. We have added \$509 million to the FY 1998 FYDP to accelerate the schedule for an EMD phase of the program, with a first launch in FY04. This will bring the initial operating capability (IOC) for a mixed high/low SBIRS program on-line two years earlier than previously planned, in approximately FY06. This plan is supported by both the Defense Science Board and the GAO, which found the FY04 initial launch date for the SBIRs-Low "technically prudent."

CRUISE MISSILE DEFENSE

Many of the sensors, BM/C3 infrastructure and weapons deployed and under development for BMD will also have an effective capability to counter the growing land-attack cruise missile threat. In particular, the lower-tier PAC-3, Navy Area Defense, and MEADS systems operate in the same battlespace and will have capability against cruise missiles. In addition, the NMD BM/C3 architecture will be designed to promote interoperability and evolution to a common BM/C3 system for ballistic and cruise missile defense.

The Department also has a number of initiatives outside the BMD program to improve the ability of U.S. forces to detect and defeat cruise missiles "in theater" or launched against the United States. These initiatives include advanced technology sensors to detect low observable cruise missiles; upgrades to existing airborne platforms to improve over-the-horizon detection capability against cruise missiles; a Joint Program Office for the Development of a new aerostat sensor platform; and upgrades to existing missile interceptor systems.

TECHNOLOGY BASE

The last element of the Department's Ballistic Missile Defense program is the technology base. This program underpins both the TMD and the NMD programs by continuing to advance our capability to counter future and possibly more difficult threats. The BMD technology base allows us to provide block upgrades to our baseline systems, to perform technology demonstrations for reducing risk and providing a path to speed technology insertion, and to advance some of our basic underlying technologies to provide a hedge against future threats--including research into advanced concepts, such as directed energy systems capable of global coverage.

ARMS CONTROL AGREEMENTS

Our theater missile defense (TMD) programs are going forward without ABM Treaty constraints on the capabilities necessary to meet TMD requirements. As we have previously informed the Congress, we have certified the compliance of the Patriot, Navy Area Defense, and Navy Theater Wide systems and the THAAD system-- both the UOES and objective versions of THAAD. DoD has now certified as treaty compliant all current U.S. TMD programs that have matured to a point where it is possible to assess compliance. These programs will proceed without any ABM Treaty restrictions on their intended capabilities for theater missile defense. We will, of course, review for compliance purposes any changes to these programs. DoD will make any further compliance assessments that are necessary for U.S. TMD systems at the appropriate points in their programs.

As the Committees are aware, the United States has been negotiating with Russia and other newly independent states to reach agreement on demarcation between ABM systems and non-ABM TMD systems. We have not yet concluded an agreement, and the negotiations are continuing. In the meantime, compliance determinations for TMD systems will remain a national responsibility. As I noted above, we have already certified as treaty compliant all current U.S. TMD programs that have matured to the point where it is possible to assess compliance, so we do not need the demarcation agreement in order for our TMD programs to proceed as currently planned.

With respect to the impact of the ABM Treaty on our national missile defense (NMD) program,

DoD is considering various proposals for systems that would provide a limited defense of the entire United States against intercontinental range, or strategic, ballistic missiles. Systems to counter strategic ballistic missiles are considered ABM systems, and thus various provisions of the ABM Treaty would have to be considered. DoD will make formal ABM Treaty compliance assessments of the proposed systems as necessary once their designs have matured to a point where this is possible. However, the development program that will be executed over the next three years is expected to be compliant with the Treaty. The system components that ultimately would be fielded, should a deployment decision be made after three years, would depend on factors such as the threat, and might comply with the current Treaty, or might require Treaty modification.

SUMMARY

In summary, the Department is committed to protecting the United States, including U.S. forces deployed abroad, and our allies against ballistic missile, cruise missile, and weapons of mass destruction threats. We have a comprehensive national security strategy for countering such threats, including preventing and reducing the threat; deterring the threat; and defending against it. Active defense against ballistic missile attack is an important component of that strategy.

Our BMD priorities are reflected in the President's budget, which includes \$12.5 billion across fiscal years 1998 through 2003. Our first priority, Theater Missile Defense, deals with the threat that exists today. The second priority is National Missile Defense. And the third priority is to support the underlying technology base.

I believe the program proposed by the Department responds to the threats and to the priorities expressed by the Joint Chiefs of Staff. The TMD program fully supports deployment of early operational capabilities for the high-priority lower-tier systems, and provides the ability to deploy upper-tier systems in response to the threat and the availability of funding for those systems.

Our NMD program shifts from a technology readiness posture to a deployment readiness posture. The development portion of the program will comply with the Anti-Ballistic Missile Treaty and enable the United States to develop within three years, elements of an initial NMD system that could be deployed within three years of a deployment decision. This approach would preserve thereafter a capability to deploy within three years, while allowing the United

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States to continue the advancement of technology, add new elements to the system, and reduce deployment timelines. The NMD system would have the purpose of defending against rogue and accidental/unauthorized threats. It would not be capable of defending against a heavy deliberate attack.

I am convinced that we have a missile defense program that is balanced, affordable, and executable, and that is consistent with the priorities of the Joint Chiefs of Staff and warfighters.

Mr. Chairmen, thank you for this opportunity to appear before the Committee. I shall be happy to answer any questions you may have.